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ARIZONA AS A
HEALTH RESORT

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ARIZONA

— AS A —

Health Resort.

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Arizona as a Health Resort.

The purport of this paper is to call the attention of the medical profession to the super-eminent advantages which Arizona offers as a health-resort. Arizona is situated in the southwestern corner of the United States, between the 31st and 37th degree of latitude, and extends from the 109th degree of longitude westward to the Colorado, representing an area of 114,000 square miles.

It is located between the convergence of the Sierra Nevada and Rocky Mountain ranges, and forms the larger portion of the southern extremity of the arid belt in the United States. The territory presents evidences of all the agencies of nature. Fire and water, convulsion and erosion, upheaval and depression, have left their impress upon the face of the country.

Arizona is surrounded by regions equally waterless. The proximity of the Pacific would indicate considerable moisture, but most of the humidity from that source is precipitated upon the western slope of the Sierra Madre Mountains, in Southern California, and what little gets over them is disseminated by the burning sands of the Mojave and Yuma deserts before reaching the territory. The loss of the humidity is compensated for by the protection from the fogs and winds of the California coast.

Our condition of health or unhealth depends more upon the state of the atmosphere than is generally recognized. I believe that the climate of Arizona presents every degree of elevation, temperature and humidity necessary for restoration and maintenance of health. This claim may not appear so overdrawn if you recall the fact that the territory is fourteen times as large as the State of New Jersey. Let us indicate some of the diseases benefitted by climate, and see if we cannot find antidotal conditions for most of this class of ailments within the confines of Arizona. Probably all the bodily functions are modified to a greater or lesser extent by the different factors which enter into the formation of climate, and, as disease is but a perversion of function, it follows that it must also be affected thereby. But it is mainly for diseases of the air-passages that we order a change of climate. Many of the numerous neuroses may be cured or alleviated by finding harmonious surroundings. Some heart troubles are also much benefitted by proper climate. Many renal disorders could be treated to greater advantage if we could place the patient under atmospheric conditions where the burden of the excretion of water and salts was thrown upon other organs.

In that large class of diseases where more than one organ is involved—as the heart, lungs, and kidneys—a climate may be found which would produce a compensation and partial interchange of functions.

In the present unformulated state of climatological therapeutics, it is to phthisis alone to which we refer when we speak of climatic treatment, and it is the disease particularly in question in this communication. A fitting climate does more good in this disease than all other treatment combined, perhaps producing in some cases a cure.

Imperial in extent, it is impossible to generalize about Arizona, so we will treat our subject under several heads. Arizona, like all Gaul, may be divided into three parts:

- I. A mountain portion.
- II. A valley portion.
- III. A plateau portion.

This corresponds to the appropriate classification of the Mexican regions made by Hernando Cortes, into *tierra fría*, *tierra caliente*, and *tierra templada*—cold, warm, and temperate regions.

I. The mountain portion is composed of isolated mountain masses, arising principally from the plateau, representing an elevation of eight thousand feet and upward, and may be dismissed from our consideration, as the conditions of rarefaction and cold are not usually desirable.

II. The Colorado River drains the whole of Arizona, and the general trend of the drainage is toward Yuma, in the southwestern corner of the territory. This being its lowest point, we will enter the territory here and follow the natural rise of the land upward.

The town of Yuma is situated just below the confluence of the Colorado and Gila Rivers. Here

"Vertical, the sun
Darts on the head direct his forceful rays,
And Cancer reddens with the solar blaze."

If it is your fortune to reach the place in July, with the temperature 112° F. in your stuffy sleeper at midnight, you will surely sympathize with the poor soldier who died here and met with such a cool reception in the other world, and appreciate the appropriateness of the designation *calida fornax*—fiery furnace—applied to this region by Cortes and his companions.

Yuma is about one hundred and seventy-five feet above the sea, with a total annual precipitation of but a few inches. Nevertheless, for eight months in the year the place is inviting enough if you want a warm, dry climate, near the sea-level. However, the valley portion (which comprises the southern half of the territory) has a much higher elevation, the general average being about two thousand feet. Phoenix (1,200 ft.), Fort McDowell (1,800 ft.), and Fort Lowell, near Tucson (2,500 ft.), we will select as typical locations. The meteorological reports from these stations indicate an annual range of temperature of from 30° to 110°, with a yearly mean of 68°. The total rainfall of the valley portion is about eight inches.

Snow never falls here. The soil is sandy and holds no moisture, but artesian borings will reach water in most of the valleys. Natural vegetation, except along the water-courses, is scanty and that of the desert; but where irrigation is applied, almost anything, from oranges to wheat, can be raised.

It is the land of sunshine, fruits, and flowers, and the home of the cacti. Geraniums become tree-like, and heliotropes clamber like grape-vines. Cattle breed all the year. Centenarians are comparatively common among the Mexicans and Indians. I have seen gray-headed squaws whose identity was obscured by as many wrinkles as Haggard's "She."

The air is nearly free from organic matter, and the few microbes present are rendered inert by the lack of moisture. The whole makes up a warm, dry climate, of moderate elevation. It is the best winter home for phthisis that I know of. For those whose hearts or nervous tension cannot stand a higher altitude, it is best the whole year.

Throughout the country are mineral and mud springs which have a local reputation for possessing curative properties.

Southern Arizona is the land of "Manana," where one can lead a *dolce far niente* existence and not care whether school keeps or not.

"What men call gallantry, and the gods adultery," is not common because the climate is *not* sultry. It is a haven of rest for the society belle and the Wall Street man who have been living on their nerves. The one, in her hammock under the palms, will soon learn to handle her fan and *mantilla* with the indolent grace of a true *senorita*; while the latter will smoke his *cigarro* by the

murmuring *acequia* and dream of the days when the fat *padres* ruled the land, while the slaving *peons* tilled the maize and carried in the gold from the mountains.

The three or four summer months are warm, it is true, occasionally reaching 118° or 120° F., but in spite of the temperature, sunstrokes are unknown. The temperature rises so high that the moisture is not able to keep up with it, thereby reducing the relative humidity and making the heat less intolerable and depressing than it often is in our Eastern cities.

Everybody sleeps out-doors during the hottest weather, and the thermometer usually falls enough at night to make sleep refreshing. A mosquito netting is generally sufficient covering, and if you sprinkle it well before using you will probably get through the night very comfortably.

III. Let us now ascend to the plateau region, which is north of the 34th parallel, and, roughly speaking, makes up the northern half of the territory. The altitude varies from five thousand feet to seven thousand feet. The ascent from the valleys is gradual at some places; at others, abrupt, giving at certain seasons Switzerland and the Riviera within a few hours travel on horseback. As we rise the air becomes cooler, and the cacti and mesquite are replaced by juniper and pines. Grass and other vegetation is more abundant. The pulse and respiration are increased, and the lips become dry. There will generally be a little systematic disturbance at first, upon reaching an elevation of six thousand feet, but when one has become accustomed to the new environment he will comprehend the pleasure of mere living. The appetite is increased, and sleep is oblivion. To pass one's entire existence in the effete East is to miss something good in life, and to finally die of crowd-poison. Northern Arizona is a general table-land from which the mountains arise in separate, circumscribed masses. The country is fairly well timbered, and the grass is at times abundant. The drainage of the naturally porous soil is enhanced by the valleys on one side, and the Grand Canon on the other. Indeed, so perfect is it, that water cannot be reached by means of wells.

The air is bright and exhilarating, and the sun shines nearly every day in the year. The atmosphere is so clear and impalpable that at night

"The heavens seem as near as our own mother's face is,
And we think we could touch all the stars that we see."

Whipple Barracks (Prescott) and Fort Apache are both at an elevation of about six thousand feet. The records of the post hospitals at these posts show that the annual range of temperature is from 10° to 90°, and that the mean is 53° F. The annual precipitation will average sixteen inches. There are no well defined wet and dry seasons. The heavy rains occur monthly in the winter, and the showers in the early summer.

Snow falls during the winter. It does not lie long on the open country, but will last a long time in the shade. The plateau is almost free from the wind and sand storms of the highlands of Colorado.

The researches of Schwann, Budd, Pasteur, Lister, Tyndall, Koch and numerous others, have demonstrated that, at ordinary levels, the air is full of floating matter, that this matter is mainly organic, and that many of these organisms are the cause of, or intimately associated with, disease. It has also been shown that at an elevation of six thousand feet bacteria are practically absent. Furthermore, experiments in germ-culture teach us that they require a considerable degree of heat and moisture for their development and propagation. Now, in Northern Arizona the conditions are all unfavorable. The coolness, the low degree of humidity, and the high percentage of ozone make up an atmosphere extremely inimical to bacterial life.

The efficacy of rarefaction in some diseases is so well established that we

construct ingenious cabinets to relieve the pressure of gravity; here we find nature doing it, and as in everything else, better than man can do. We bottle up oxygen and dole it out to our patients a few minutes a day; here they can bathe in it the whole year long. In fact, the air is a real aseptic and antimicrobial fluid freely invading and preserving every accessible part of the person. The general mortality is less, wounds heal by immediate union without a dressing, and the bodies of dead cattle literally dry up and blow away. I never met a case of phthisis in an old settler, and it is well known that tuberculosis is very rare among the Indians and Mexicans. It is always warm in the sunlight, even during the coldest days of winter.

Although the equability of temperature is not so great as in the valleys, the fall after sunset is more conducive to refreshing sleep, and gives a *tonus* which one does not get in the valleys.

As the low degree of humidity causes the heat in the valley portion to be supportable, so the same absence of moisture makes the cold less intense on the plateau. Perspiration does not collect upon the surface, thereby eliminating that ever present danger of "catching cold," which is the basis of so many diseases and retards treatment so much.

Bleeders have no business here, as there is a tendency to hemorrhage from the mucous membranes. High strung, nervous persons cannot stand the stimulating atmosphere. Women, on account of their finer nervous organization, are liable to neuralgia and insomnia. They are apt to suffer from dysmenorrhœa and ovarian pain.

Of course, if a patient is in the last stage of tubercular phthisis his place is at home. Cases not so far advanced, but in whom there is not enough lung-tissue left to breathe at this altitude, should be advised to seek the valleys. But the ordinary cases of consumption, which we usually see in the first stage, can be sent direct to Northern Arizona. If the general health is robust, if there is no laryngeal or bronchial irritability, and if the heart is equal to the added strain, these primary cases can remain on the plateau all the time. The average case, however, will do best by passing the three or four winter months in the valleys.

It is almost impossible to designate the exact points for each patient. Primary cases should be sent to Northern Arizona, and those further advanced to Southern Arizona, and all directed to seek the most favorable places after getting there.

The entire length of the plateau is crossed by the Atlantic and Pacific Railroad, while Southern Arizona is traversed by the Southern Pacific Railroad. Prescott, the capital of the territory, is the gem of the northern climatic zone, and Phoenix and Tucson are rival queens of the valley portion. These are good objective points, and all are reached by rail. Throughout the territory the accommodations for the entertainment of invalids are not so grand as in some other parts of the West, but, I believe, more desirable on that account. There are no mammoth hotels with their thousand guests and gilded cesspools.

If one can live on a ranch, or pass most of his time in the saddle, so much the better. Its remarkable formation and natural wonders, its ancient and mysterious history, and its superior climate, appeal to and stimulate every element of our nature, and make Arizona unexcelled as a health-resort for certain classes of disease.



